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FILE 'HOME' ENTERED AT 09:58:56 ON 19 FEB 2005

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	0.21	0.21

FILE 'CAPLUS' ENTERED AT 09:59:03 ON 19 FEB 2005
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FILE COVERS 1907 - 19 Feb 2005 VOL 142 ISS 9
FILE LAST UPDATED: 18 Feb 2005 (20050218/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> HCV (s) replicon
8738 HCV
17 HCVS
8742 HCV
(HCV OR HCVS)
2986 REPLICON
1500 REPLICONS
3685 REPLICON
(REPLICON OR REPLICONS)
L1 239 HCV (S) REPLICON

=> lambda (w) phage
171690 LAMBDA
66 LAMBDA
171703 LAMBDA
(LAMBDA OR LAMBDA)
45082 PHAGE
7309 PHAGES
46708 PHAGE
(PHAGE OR PHAGES)
L2 2782 LAMBDA (W) PHAGE

=> L1 and L2
L3 0 L1 AND L2

=> phage
45082 PHAGE
7309 PHAGES
L4 46708 PHAGE
(PHAGE OR PHAGES)

=> L1 and L4
L5 1 L1 AND L4

=> D L5 IBIB ABS

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1010148 CAPLUS
DOCUMENT NUMBER: 142:130666
TITLE: Protein kinase C-related kinase 2 regulates hepatitis C virus RNA polymerase function by phosphorylation
AUTHOR(S): Kim, Seong-Jun; Kim, Jung-Hee; Kim, Yeon-Gu; Lim, Ho-Soo; Oh, Jong-Won
CORPORATE SOURCE: Department of Biotechnology, Yonsei University, Seoul, 120-749, S. Korea
SOURCE: Journal of Biological Chemistry (2004), 279(48), 50031-50041
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The hepatitis C virus (HCV) NS5B protein is the viral RNA-dependent RNA polymerase required for replication of the HCV RNA genome. We have identified a peptide that most closely resembles a short region of the protein kinase C-related kinase 2 (PRK2) by screening of a random 12-mer peptide library displayed on the surface of the M13 bacteriophage with NS5B proteins immobilized on microwell plates. Competitive **phage** ELISA with a synthetic peptide showed that the **phage** clone displaying this peptide could bind HCV RNA polymerase with a high affinity. Coimmunopptn. and colocalization studies demonstrated in vivo interaction of NS5B with PRK2. In vitro kinase assays demonstrated that PRK2 specifically phosphorylates NS5B by interaction with the N-terminal finger domain of NS5B (amino acids 1-187). Consistent with the in vitro NS5B-phosphorylating activity of PRK2, we detected the phosphorylated form of NS5B by metabolic cell labeling. Furthermore, HCV NS5B immunopptd. from HCV subgenomic **replicon** cells was specifically recognized by an antiphosphoserine antibody. Knock-down of the endogenous PRK2 expression using a PRK2-specific small interfering RNA inhibited HCV RNA replication. In contrast, PRK2 overexpression, which was accompanied by an increase of in the level of its active form, dramatically enhanced HCV RNA replication. Altogether, our results indicate that HCV RNA replication is regulated by NS5B phosphorylation by PRK2.
REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT